

```

<!--StartFragment-->RESULT 1
AGU69156
LOCUS      AGU69156                681 bp    mRNA    linear    PLN 05-JAN-1999
DEFINITION Alnus glutinosa actinorhizal nodulin AgNOD-GHRP (AgNt84) mRNA,
            complete cds.
ACCESSION  U69156
VERSION    U69156.1  GI:4097819
KEYWORDS   .
SOURCE     Alnus glutinosa
ORGANISM   Alnus glutinosa
            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
            Spermatophyta; Magnoliophyta; eudicotyledons; core eudicotyledons;
            rosids; eurosids I; Fagales; Betulaceae; Alnus.
REFERENCE  1  (bases 1 to 681)
AUTHORS    Twigg,P.G.
TITLE      Isolation of a nodule-specific cDNA encoding a putative
            glycine-rich protein from Alnus glutinosa
JOURNAL    Thesis (1993) The University of Tennessee, Knoxville, TN, USA
REFERENCE  2  (bases 1 to 681)
AUTHORS    Dobritsa,S.V. and Mullin,B.C.
TITLE      In vitro expression of actinorhizal nodulin AgNOD-GHRP and
            demonstration of its toxicity ot Escherichia coli
JOURNAL    (in) Stacey,G., Mullin,B.C. and Gresshoff,P.M. (Eds.);
            THE BIOLOGY OF PLANT-MICROBE INTERACTIONS: PRECEEDINGS OF THE 8TH
            INTERNATIONAL SYMPOSIUM ON MOLECULAR PLANT-MICROBE INTERACTIONS;
            (1996) In press
REFERENCE  3  (bases 1 to 681)
AUTHORS    Pawlowski,K., Twigg,P.G., Dobritsa,S.V., Guan,C. and Mullin,B.C.
TITLE      A nodule-specific gene family from Alnus glutinosa encodes glycine
            and histidine-rich proteins expressed in the early stages of
            actinorhizal nodule development
JOURNAL    Unpublished (1996)
REFERENCE  4  (bases 1 to 681)
AUTHORS    Twigg,P.G. and Mullin,B.C.
TITLE      Direct Submission
JOURNAL    Submitted (03-SEP-1996) Botany, University of Tennessee, 437 Hesler
            Biology Building, Knoxville, TN 37996, USA
FEATURES   Location/Qualifiers
            source          1..681
                               /organism="Alnus glutinosa"
                               /mol_type="mRNA"
                               /db_xref="taxon:3517"
                               /tissue_type="root nodules"
            gene            1..681
                               /gene="agNt84"
            CDS              74..373
                               /gene="agNt84"
                               /note="glycine/histidine-rich protein"
                               /codon_start=1
                               /product="actinorizal nodulin AgNOD-GHRP"
                               /protein_id="AAD00171.1"
                               /db_xref="GI:4097820"
                               /translation="MGYSKTFLLGLAFVVLIISSDVSASELAVAAQTKENMQTDGV
            EEDKYHGHRRHVHGHGHGHVHGNGNEHGHGHHHGRGHPGHGAAADETETETETNQN"
ORIGIN

Query Match          100.0%;  Score 655;  DB 4;  Length 681;
Best Local Similarity 100.0%;  Pred. No. 2.5e-177;
Matches 655;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

Qy      1  AATTAATCATCTTAGAGTTTGTTCCTAGCTAGTACTACATTGTCTCCAATCCTCTTCA 60

```

```

      |||
Db      1 AATTAATCATCTTAGAGTTTGTTCCTAGCTAGTACTACATTGTCTCCAATCCTCTTCA 60
Qy      61 TTGTTAACGAAAAATGGGTTACTCCAAGACTTTTCTTCTCCTTGGCCTTGCCTTTGCTGT 120
      |||
Db      61 TTGTTAACGAAAAATGGGTTACTCCAAGACTTTTCTTCTCCTTGGCCTTGCCTTTGCTGT 120
Qy      121 TGTGCTCCTCATCTCCTCCGATGTCTCAGCTTCTGAGCTTGCTGTTGCCGCTCAAACCAA 180
      |||
Db      121 TGTGCTCCTCATCTCCTCCGATGTCTCAGCTTCTGAGCTTGCTGTTGCCGCTCAAACCAA 180
Qy      181 GGAGAATATGCAAACGACGGTGTGGAGGAGGATAAGTATCATGGCCATCGTCACGTGCA 240
      |||
Db      181 GGAGAATATGCAAACGACGGTGTGGAGGAGGATAAGTATCATGGCCATCGTCACGTGCA 240
Qy      241 TGGACATGGGCATGGACATGTACATGGGAATGGGAATGAACATGGACATGGTCATCACCA 300
      |||
Db      241 TGGACATGGGCATGGACATGTACATGGGAATGGGAATGAACATGGACATGGTCATCACCA 300
Qy      301 CGGCCGTGGTCACCCAGGACACGGTGCTGCTGCAGACGAGACAGAAACCGAAACTGAAAC 360
      |||
Db      301 CGGCCGTGGTCACCCAGGACACGGTGCTGCTGCAGACGAGACAGAAACCGAAACTGAAAC 360
Qy      361 CAACCAAAATTAGACCAATCTTTTGATTTCGTCTATATATGCTATCAGTTGTACGTACGT 420
      |||
Db      361 CAACCAAAATTAGACCAATCTTTTGATTTCGTCTATATATGCTATCAGTTGTACGTACGT 420
Qy      421 CTAAGTGTGTCTAAGTCGTAATATGTGGCTTAATTATCTAATTAAGCTTGTATGCCAATA 480
      |||
Db      421 CTAAGTGTGTCTAAGTCGTAATATGTGGCTTAATTATCTAATTAAGCTTGTATGCCAATA 480
Qy      481 AACTTTATGTTTCTACTTTTGTTCATGTGTAATTTTGTCTTTTCTATGTATTACAATGTAC 540
      |||
Db      481 AACTTTATGTTTCTACTTTTGTTCATGTGTAATTTTGTCTTTTCTATGTATTACAATGTAC 540
Qy      541 GCTGTAGCATATCAAATTAACGAATCCTTTGTCTATATATATATATATGCAACTTTT 600
      |||
Db      541 GCTGTAGCATATCAAATTAACGAATCCTTTGTCTATATATATATATATGCAACTTTT 600
Qy      601 GAAAGGCTGTACGTGAATAAGATTATATTGGATGAATATATAGTTTATGAATTCT 655
      |||
Db      601 GAAAGGCTGTACGTGAATAAGATTATATTGGATGAATATATAGTTTATGAATTCT 655

```

<!--EndFragment-->